

REMARKS

Claims 1-13 are presented for consideration, with Claims 1, 8-11 and 13 being independent.

The specification has been amended to correct minor informalities and improve its idiomatic English form. In addition, the abstract has been replaced to better set forth the technical features of the invention.

Claims 1-3, 5 and 7-9 have been amended to better set forth Applicant's invention. In addition, Claims 10-13 have been added to provide an additional scope of protection.

Initially, in response to paragraph 1 of the Office Action, Applicant respectfully wishes to point out that a certified copy of the priority document was filed on July 7, 2004. If the certified copy is not in the official file, a copy of the cover page and the drawings of the priority document and a stamped postcard receipt will be submitted at the Examiner's request.

Claims 5 and 6 were objected to as being in improper multiple dependent claim form. In amending Claims 5 and 6 as shown above, the multiple dependency has been removed. Accordingly, reconsideration and withdrawal of the objection is respectfully requested.

Claims 1, 8 and 9 stand rejected under 35 U.S.C. §102(e) as allegedly being anticipated by Zhao '934. In addition, Claims 3, 4 and 7 are rejected under 35 U.S.C. §103 as allegedly being obvious over Zhao and further in view of Watanabe '141. These rejections are respectfully traversed.

Claim 1 of Applicant's invention relates to a radiation imaging apparatus comprised of radiation detection means including radiation detection elements for detecting radiations which have penetrated an object as electric signals, with the elements arranged in a two-dimensional array, and image display control means for producing a radiation image of the object detected as the electric signals with the radiation detection means as continuous images including a plurality of frames. The image display control means switches a tube voltage of a radiation source for emitting the radiations between a first voltage at a time of producing odd images and a second voltage at a time of producing even images. The image display control means further controls a display device to continuously display a plurality of processed images as a dynamic image, with each of the processed images being obtained by performing a subtraction process between an odd image of the odd images and an even image of the even images. As amended, Claim 1 sets forth that the even image is derived in succession to the odd image.

Support for the amendments to Claim 1 can be found, for example, on page 10, line 15, *et. seq.*, of the specification. In accordance with Applicant's claimed invention, a high performance radiation imaging apparatus can be provided.

The primary citation to Zhao relates to a digital X-ray imaging system that includes an X-ray tube/generator 10 and an X-ray detector 30 (see Figure 1). As disclosed, these components are controlled by a computer 40 so as to acquire dual energy X-ray images of a subject 50 that are acquired automatically, in rapid succession, and are stored in temporary storage 60 (see column 3, lines 1-14).

In contrast to Claim 1 of Applicant's invention, however, Zhao is not understood to teach or suggest, among other features, controlling a display device to continuously display a plurality of processed images obtained by performing a subtraction process between an odd image of the odd images and an even image of the even images, with the even image being derived in succession to the odd image.

Independent Claims 8 and 9 relate to a radiation imaging system and radiation imaging method, respectively, and have been amended along the same lines of Claim 1 to recite that each of the displayed processed images are obtained by performing a subtraction process between an odd image of the odd images and an even image of the even images, with the even image being derived in succession to the odd image. These claims are therefore submitted to be patentable over Zhao for at least the same reasons discussed above with respect to Claim 1.

Accordingly, reconsideration and withdrawal of the rejection of Claims 1, 8 and 9 under 35 U.S.C. §102(e) is respectfully requested.

The secondary citation to Watanabe relates to a radiation detection device with a semiconductor device and was cited for its teaching of having radiation detector components of particular materials. Watanabe fails, however, to compensate for the deficiencies in Zhao as discussed above with respect to Claim 1. Therefore, without conceding the propriety of combining Zhao and Watanabe in the manner proposed in the Office Action, such a combination

still fails to teach or suggest Applicant's claimed invention. Therefore, reconsideration and withdrawal of the rejection of Claims 3, 4 and 7 under 35 U.S.C. §103 is respectfully requested.

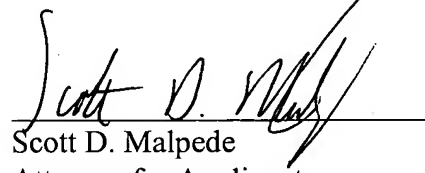
Accordingly, it is submitted that Applicant's invention as set forth in independent Claims 1, 8 and 9 is patentable over the cited art. In addition, dependent Claims 2-7 set forth additional features of Applicant's invention. Independent consideration of the dependent claims is respectfully requested.

New Claims 10-13 are also submitted to be patentable over the cited art. In this regard, Claims 10 and 11 relate to a radiation imaging apparatus and system, respectively, and include image display control means that switches an energy of a radiation between a first energy at a time of producing odd images and a second energy at a time of producing even images, and further controlling a display device to continuously display a plurality of processed images by performing a subtraction process between an odd image of the odd images and an even image of the even images, with the even image being derived in succession to the odd image. In Claim 13, a computer program operates a computer to execute display of a movie image using a subtraction process of a first image derived by a first energy radiation and a second image derived by a second energy radiation.

In view of the foregoing, reconsideration and allowance of this application is deemed to be in order and such action is respectfully requested.

Applicant's undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



Scott D. Malpede
Attorney for Applicant
Registration No. 32,533

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200

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